

EXHIBIT 4

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**United States District Court
Northern District of California**

Case No. 3:18-cv-07354-WHA

**ALICIA HERNANDEZ et al., individually and on behalf of all others
similarly situated, Plaintiffs,**

v.

WELLS FARGO BANK, N.A. Defendant.

**Expert Report of Dan Salah
December 18, 2019**

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1. INTRODUCTION

1. I have been retained by counsel representing Alicia Hernandez et al. ("Plaintiffs") to calculate certain types of economic damages resulting from Wells Fargo Bank, N.A.'s ("Defendant's") alleged wrongful conduct including breach of contract, among other causes of action. Specifically, I have been asked to calculate economic damages for two subsets of Plaintiffs.¹ The first subset of Plaintiffs consists of those Plaintiffs named in the Second Amended Class Action Complaint dated August 26, 2019 ("Named Plaintiffs"). The second subset of Plaintiffs consists of all Plaintiffs and proposed class members whose properties at issue in this case are located in California ("California Plaintiffs").²

2. The opinions I express relate solely to the items of economic harm described herein.³ I offer no opinions regarding Plaintiffs' entitlement to damages, or any categories of economic or other harm that any proposed California class member might seek to prove in an individualized damage hearing. The analyses and opinions I express in this report relate solely to the financial and economic issues I have been asked to address, and I offer no opinions regarding liability. I have been asked to look at major categories of financial harm. There may be other financial categories or non-economic harm that I have not been asked to calculate but that plaintiffs themselves could prove, including, but not limited to payments to bankruptcy attorneys, payments to third party mortgage modification companies and emotional distress. These categories are outside of the scope of this report.

¹ It is my understanding Wells Fargo has identified certain Plaintiffs it contends are either not impacted, although they were previously considered impacted, and certain Plaintiffs have signed a release. I have not been asked to opine about damages for those plaintiffs. I reserve the right to modify this opinion if additional information is made available to me regarding these Plaintiffs, including, but not limited to, later findings that they are in fact "impacted" and/or that the release is invalid.

² Ms. Debora Granja is both a Named Plaintiff and a California Plaintiff, and she was previously married to Mr. Craig Enis, another California Plaintiff. In order to minimize any confusion, my summary schedules include Ms. Granja only among the California Plaintiffs, and economic damages is not calculated separately for Mr. Enis. Furthermore, I understand that Plaintiffs seek to add Ms. Sandra Campos as a class representative. Ms. Campos is only included in the summary schedules for the California Plaintiffs.

³ I understand Plaintiffs are seeking various forms of recovery. I use the term damages in this report to include all forms of economic harm I have been asked to address. I am not offering an opinion on non-economic harm.

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3. In reaching my opinions expressed herein, I have assumed the veracity of the documents and testimony provided to me. I have further assumed that each Plaintiff would have accepted the loan modification, had it been offered.

2. SUMMARY OF OPINIONS⁴

4. Based on the data and analysis as set forth in this report, I have reached the conclusion that the economic harm described below suffered by the Named Plaintiffs as a result of Wells Fargo's alleged wrongful conduct is as follows:

Figure 1: Summary of Damages for Named Plaintiffs⁵

Plaintiff	Summary of Damages						Total Pre-Tax
	Lost Equity	Lost Use	Other	Total After-Tax			
(a)							
Alicia Hernandez	\$ 44,842	\$ 371	\$ -	\$ 45,213	\$		59,491
Emma White	\$ -	\$ 43,223	\$ 2,300	\$ 45,523	\$		59,899
Troy Frye	\$ 43,191	\$ 32,304	\$ 2,300	\$ 77,795	\$		102,362
Coszetta Teague	\$ -	\$ 23,172	\$ 2,300	\$ 25,472	\$		33,515
John and Yvonne DeMartino	\$ -	\$ 14,818	\$ 433	\$ 15,251	\$		20,067
Russell and Brenda Simoneaux	\$ -	\$ -	\$ 19,132	\$ 19,132	\$		25,174
Rose Wilson	\$ 36,189	\$ 6,646	\$ 2,300	\$ 45,135	\$		59,388
Tiffanie Hood	\$ 76,235	\$ 3,242	\$ 2,300	\$ 81,777	\$		107,601
Cyndi Floyd	\$ 14,354	\$ 8,162	\$ 2,300	\$ 24,816	\$		32,652
Diana Trevino	\$ 97,471	\$ 42,085	\$ 2,300	\$ 141,856	\$		186,653
Total	\$ 312,282	\$ 174,022	\$ 35,666	\$ 521,970	\$	686,803	

⁴ The opinions that I express in this report are based on information available to me as of the date of my report. I may modify my opinions if additional information is made available to me or if I become aware of factors that I did not foresee in preparing my analysis. In particular, I note that many of the California Plaintiffs have not been deposed as of the time of my report or were so recently deposed in advance of the date of my report that I have not had sufficient time to incorporate their testimony into my findings herein. To the extent I receive additional information related to the California Plaintiffs in the future, my findings herein may change.

⁵ Exhibit 1, Schedule 1.0. I am aware that at least some Plaintiffs have previously received compensation from Wells Fargo related to this matter, but for purposes of this Report I have not considered those payments and express no opinion as to whether those payments constitute a legitimate offset.

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5. I have also reached the conclusion that compensation due to the California Plaintiffs is as follows:

Figure 2: Summary of Damages for California Plaintiffs⁶

Plaintiff	Lost Equity	Lost Use	Summary of Damages			Total Pre-Tax
			Other	Total After-Tax		
(a)	(b)					
Debora Granja	\$ 236,567	\$ 156,279	\$ 2,300	\$ 395,146	\$ 519,929	
Ismael Cedillos	\$ 283,810	\$ 60,343	\$ 2,300	\$ 346,453	\$ 455,859	
Sandra Campos	\$ 174,100	\$ 42,705	\$ 2,300	\$ 219,105	\$ 288,296	
Ruben Gallardo	\$ -	\$ -	\$ 23,139	\$ 23,139	\$ 30,446	
Maria Nuno	\$ 76,833	\$ 48,460	\$ 2,300	\$ 127,593	\$ 167,886	
Jerry De la Cruz	\$ 139,718	\$ 31,419	\$ 2,300	\$ 173,437	\$ 228,206	
Charles Gomez	\$ 276,617	\$ 68,295	\$ 2,300	\$ 347,212	\$ 456,858	
Cathline Gonzales	\$ 116,228	\$ 47,088	\$ 2,300	\$ 165,616	\$ 217,915	
Jameel Hayden	\$ 205,827	\$ (36,580)	\$ 2,300	\$ 171,547	\$ 225,720	
Kevin Nesbitt	\$ 304,085	\$ 58,292	\$ 2,300	\$ 364,677	\$ 479,838	
Michael Carrol	\$ -	\$ -	\$ 110	\$ 110	\$ 145	
Jose L. Chavez	\$ -	\$ -	\$ -	\$ -	\$ -	
Elizabeth Messana	\$ 224,757	\$ 18,176	\$ 2,300	\$ 245,233	\$ 322,674	
Martha Montenegro	\$ 222,057	\$ 85,365	\$ 2,300	\$ 309,722	\$ 407,529	
Rafael Sanchez	\$ 342,280	\$ 133,755	\$ 2,300	\$ 478,335	\$ 629,388	
Scott Seymour	\$ -	\$ -	\$ 11,668	\$ 11,668	\$ 15,353	
Hortensia Torres	\$ 48,073	\$ 95,804	\$ 2,300	\$ 146,177	\$ 192,338	
David Vance	\$ 80,409	\$ 24,526	\$ 2,300	\$ 107,234	\$ 141,098	
Anna Schulke	\$ 117,126	\$ 25,653	\$ 2,300	\$ 145,079	\$ 190,893	
Derrick Cannon	\$ 88,932	\$ (11,134)	\$ 2,300	\$ 80,097	\$ 105,391	
Jason Hewitt	\$ 142,995	\$ 37,341	\$ 2,300	\$ 182,636	\$ 240,311	
Kimberly Gladman	\$ 207,625	\$ 57,695	\$ 2,300	\$ 267,619	\$ 352,131	
Donna Perreault	\$ 20,333	\$ 4,966	\$ 2,300	\$ 27,599	\$ 36,315	
Joseph Plescia	\$ 218,943	\$ 28,358	\$ 2,300	\$ 249,601	\$ 328,422	
Total	\$ 3,527,313	\$ 976,805	\$ 80,917	\$ 4,585,036	\$ 6,032,942	

⁶ Exhibit 1, Schedule 1.1. I am aware that at least some Plaintiffs have previously received compensation from Wells Fargo related to this matter, but for purposes of this Report I have not considered those payments and express no opinion as to whether those payments constitute a legitimate offset. Other damages for Mr. Jose Chavez have not yet been calculated pending receipt of further information.

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3. QUALIFICATIONS

6. I am currently a Director at LitiNomics, Inc., a financial and economic consulting firm dedicated to supporting corporations, law firms, and financial institutions as they address issues that arise in commercial litigation. In addition to my role at LitiNomics, I am currently a tenured member of the faculty, and formerly the Chair of the Business Department, at De Anza College in Cupertino, California where I teach Accounting, Investments, Financial Planning and Business Law, among other courses.

7. My prior work experience also includes approximately eight years as a management and economic consultant for several large accounting and consulting firms. During this time, I regularly advised clients on mergers and acquisitions, as well as new business and product development. I also served as the Executive Director of Strategic and Financial Planning for Pacific Bell (now AT&T). While at Pacific Bell, I reported directly to the Chief Financial Officer. My responsibilities at Pacific Bell included strategic and financial planning for existing and new businesses such as the traditional local exchange service, new long distance service, Pacific Bell Mobile Services and Pacific Bell Internet Services. Finally, for a period of approximately 10 years I served as Vice President and Chief Financial Officer of a privately held food and beverage distribution company with over \$50 million in annual sales. My responsibilities included all accounting, financial and tax reporting, as well as strategic planning.

8. I have an undergraduate degree in Political Economy from the University of California at Berkeley, and a Master of Business Administration with an emphasis in finance from the University of Pennsylvania's Wharton School of Business. In addition, I became a Certified Financial Planner in 2008.⁷

9. I have significant experience with the assessment of economic damages. I have been engaged to assist in the analysis of damages claims on over 60 cases. I have relevant experience in and an understanding of the economic issues present in this matter and both my academic and professional experiences qualify me to render the opinions described in this report.

10. Exhibit 2 contains my resume, which also details my qualifications including a listing of all the cases I have worked on over the last five years.

⁷ I no longer hold the CFP® designation.

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4. BACKGROUND

4.1 Parties

4.1.1 Named Plaintiffs

Alicia Hernandez

11. I understand Ms. Hernandez was denied a mortgage modification by the Defendant, and that her New Jersey condominium was foreclosed upon.⁸

Debora Granja

12. I understand Ms. Granja was denied a mortgage modification by the Defendant, and that her home in Brentwood, California was foreclosed upon.⁹ I also understand that Ms. Granja was formerly married to Mr. Craig Enis who is a member of the California Plaintiffs, and that they shared the home in question.

Emma White

13. I understand Ms. White was denied a mortgage modification by the Defendant, and that her home in Callahan, Florida was foreclosed upon.¹⁰

Coszetta Teague

14. I understand Ms. Teague was denied a mortgage modification by the Defendant, and that her home in Calumet City, Illinois was foreclosed upon.¹¹

Russell and Brenda Simoneaux

15. I understand Mr. and Mrs. Simoneaux were denied a mortgage modification by the Defendant on their home in Baton Rouge, Louisiana, but that their home was not foreclosed upon.¹²

⁸ Second Amended Class Action Complaint, August 26, 2019, p. 3.

⁹ Second Amended Class Action Complaint, August 26, 2019, p. 3.

¹⁰ Second Amended Class Action Complaint, August 26, 2019, p. 3.

¹¹ Second Amended Class Action Complaint, August 26, 2019, p. 4.

¹² Second Amended Class Action Complaint, August 26, 2019, p. 4 and 19.

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John and Yvonne De Martino

16. I understand Mr. and Mrs. De Martino were denied a mortgage modification by the Defendant, and that their home in Baltimore, Maryland was foreclosed upon.¹³

Rose Wilson

17. I understand Ms. Wilson was denied a mortgage modification by the Defendant, and that her home in New York was foreclosed upon.¹⁴

Tiffanie Hood

18. I understand Ms. Hood was denied a mortgage modification by the Defendant, and that her home in Ohio was foreclosed upon.¹⁵

George and Cyndi Floyd

19. I understand Mr. and Mrs. Floyd were denied a mortgage modification by the Defendant, and that their home in Lancaster, Pennsylvania was foreclosed upon.¹⁶

Troy Frye

20. I understand Mr. Frye was denied a mortgage modification by the Defendant, and that he lost his home in Hephzibah, Georgia as a result.¹⁷

Diana Trevino

21. I understand Ms. Trevino was denied a mortgage modification by the Defendant, and that her home in Texas was foreclosed upon.¹⁸

4.1.2 California Plaintiffs

22. The following is a list of California Plaintiffs for whom I have been asked to calculate economic damages:

¹³ Second Amended Class Action Complaint, August 26, 2019, p. 4.

¹⁴ Second Amended Class Action Complaint, August 26, 2019, p. 4.

¹⁵ Second Amended Class Action Complaint, August 26, 2019, p. 4.

¹⁶ Second Amended Class Action Complaint, August 26, 2019, p. 4.

¹⁷ Second Amended Class Action Complaint, August 26, 2019, p. 4.

¹⁸ Second Amended Class Action Complaint, August 26, 2019, p. 4.

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- Sandra Campos
- Derrick Cannon
- Michael Carroll
- Ismael Cedillos
- Jose L. Chavez
- Jerry De la Cruz
- Craig Enis (former spouse of Named Plaintiff Debora Granja)
- Ruben Gallardo
- Kimberly Gladman
- Charles Gomez
- Cathline Gonzales
- Debora Granja (former spouse of California Plaintiff Craig Enis)
- Jameel Hayden
- Jason Hewitt
- Elizabeth Messana
- Martha Montenegro
- Kevin Nesbitt
- Maria Nuno
- Donna Perreault
- Joseph Plescia
- Rafael Sanchez
- Anna Schulke
- Scott Seymour
- Hortensia Torres
- David Vance

4.1.3 Defendant

Wells Fargo Bank, N.A. (“Wells Fargo”)

23. Wells Fargo Bank, N.A. is a “national banking association with its main office in Sioux Falls, South Dakota, and designated principal place of business in San Francisco, California.”¹⁹

¹⁹ Second Amended Class Action Complaint, August 26, 2019, p. 4.

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4.2 The Housing Crisis of 2008 and HAMP

24. A number of factors contributed to the dramatic increase in housing prices leading up to the housing crisis. The combination of low interest rates, optimistic beliefs about house price growth, “extrapolative expectations,” the role of investors in the housing market, and mortgage securitization, among other factors, played a part in the increase.²⁰ “When the housing market stalled and interest rates began to rise in the mid-2000s, the wheels came off, leading to the 2008 financial crisis.”²¹ In response, a number of mortgage modification programs were put into place to help homeowners keep their homes. The US Department of the Treasury created the largest modification program called the Home Affordable Modification Program (“HAMP”) to “offer homeowners who are at risk of foreclosure reduced monthly mortgage payments that are affordable and sustainable over the long-term.”²² According to Treasury Department:

“HAMP works by encouraging participating mortgage servicers to modify mortgages so struggling homeowners can have lower monthly payments and avoid foreclosure. It has specific eligibility requirements for homeowners and includes strict guidelines for servicers. The program includes incentives for homeowners, servicers, and investors to encourage successful mortgage modifications.”²³

4.3 Summary of Case

25. Wells Fargo has disclosed that between 2010 and 2018 it denied Plaintiffs and class members mortgage loan modifications to which they were entitled under HAMP and other government programs.²⁴ Of the over 900 customers impacted by Wells Fargo’s error, over 500 lost their homes in foreclosure.²⁵ Among the named Plaintiffs addressed in this report, all but Mr. and Mrs. Simoneaux lost their homes. Among the California Plaintiffs, all but Jose Chavez, Ruben Gallardo, Michael Carrol and Scott Seymour lost their homes.

²⁰ Loan Originations and Defaults in the Mortgage Crisis: The Role of the Middle Class, Adelino, Schoar and Severino, The Review of Financial Studies, 2016, pp. 1639-1640.

²¹ The 2008 Housing Crisis, Center for American Progress. (<https://www.americanprogress.org/issues/economy/reports/2017/04/13/430424/2008-housing-crisis/>).

²² Making Home Affordable, Home Affordable Modification Program. (<https://www.treasury.gov/initiatives/financial-stability/TARP-Programs/housing/mha/Pages/hamp.aspx>).

²³ *Id.*

²⁴ Second Amended Class Action Complaint, August 26, 2019, p. 6.

²⁵ Second Amended Class Action Complaint, August 26, 2019, p. 12.

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5. CALCULATION OF ECONOMIC DAMAGES

26. Below I present the methodology by which I calculated the types of economic damages incurred by Plaintiffs described below as a result of the failure to receive from Wells Fargo the loan modifications for which they qualified. Both my methodology and the sources of information I relied on to perform my calculations are commonly relied on by economists in the normal course of their work. My analysis and conclusions assume that Plaintiffs are able to prove the allegations made against Wells Fargo.

5.1 Methodology

27. I calculated three categories of economic damages: Lost Equity, Lost Use, and Other Damages. These three categories align with the Plaintiffs' claims for economic damages as stated in the Complaint as follows:

- Lost Equity
 - Loss of equity in their homes
 - Loss of appreciation in their homes
 - Loss of time and money invested in their homes
- Lost Use
 - Loss of their homes
 - Loss of tax benefits
- Other Damages
 - Loss of favorable interest rates and other loan terms
 - Loss of time and money spent to avoid foreclosure
 - Loss of time and money to find new housing and move their families
 - Damage to credit
 - Opportunity costs due to damaged credit and higher mortgage payments²⁶

As stated above, my calculations of these three types of economic damages are not intended to exclude other types of harm that certain Named and California Plaintiffs may have suffered but are in my opinion, the logical consequences of economic harm that would flow from the failure to receive a loan modification.

²⁶ WF_HERNANDEZ_00201093.

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5.1.1 Lost Equity

28. Lost equity results from Plaintiffs' losing their homes because they were denied loan modifications. I have assumed that Plaintiffs will be able to prove liability and show that but-for Wells Fargo's alleged wrongful conduct, they would have maintained ownership of their homes. These allegations are supported by the express intent of HAMP and other mortgage modification programs. For example, the U.S. Treasury states that HAMP loan modifications were explicitly meant "to modify mortgages so struggling homeowners can have lower monthly payments and avoid foreclosure."²⁷ Many Plaintiffs also stated that they would have gone to great lengths to save their homes. For example, Ms. Granja testified that she was renting a home for more than her loan modification payment would have been, and that she "would have done anything to keep my home."²⁸ Finally, the favorable terms of the modified loans, which included a combination of lower payments, lower fixed interest rates, longer terms and forbearance of a portion of the principal, would have been a powerful incentive to keep the homes and the modified mortgages. This is especially true for anyone offered forbearance on a portion of the outstanding principal balance owed, which is essentially an interest free loan for the entire term of the loan or until the home is sold or refinanced. The incentive would have clearly been to keep the home and the modified loan so as not to lose the benefits associated with forbearance.

29. Like all capital assets, real estate values can increase or decrease over time. The ability to maintain ownership of an asset results in the owner enjoying the benefits of any appreciation, but also running the risk that the asset will depreciate over any specific period of time. Lost equity as of today can be calculated as the difference between the current market value of the homes lost by Plaintiffs less the amount that would have been owed under the loan modification that was wrongfully denied. In a few cases, Plaintiffs did not lose their homes to foreclosure, but intend to prove that they sold their homes under the threat of foreclosure even though they preferred to keep their homes. In these cases, the lost equity is measured by the difference between the current market value of the homes less the actual sales price the Plaintiff received. Since the mortgages were paid at the time of the sale of these properties, it is not necessary to also subtract these loan balances.

²⁷ Making Home Affordable, Home Affordable Modification Program. (<https://www.treasury.gov/initiatives/financial-stability/TARP-Programs/housing/mha/Pages/hamp.aspx>).

²⁸ Granja deposition, p. 95.

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30. The balance owed on each property is available in documents produced in this case. Specifically, I have relied on documents produced by Wells Fargo for each Plaintiff that detail the differences between the then current mortgage and the proposed modified mortgage.²⁹ In some cases, I have also relied on the interrogatory responses of Wells Fargo to adjust the terms of the proposed modified mortgages.³⁰ I have also adjusted the value of any proposed loan forbearance to reflect the current present value of that obligation.³¹ This adjustment to any loan forbearance is required because a loan forbearance is not due until the end of the loan term and does not accrue interest. It is an interest free loan, meaning that the present value of the obligation is much lower than the present value of a traditional amortizing loan with interest accruing. For example, the present value of a traditional amortizing loan with a face value of \$100,000 and a 5 percent interest rate is by definition \$100,000. The sum of the monthly payments will exceed \$100,000 because of the interest. However, payback on \$100,000 of loan forbearance is only \$100,000 at the end of the loan term. The table below shows the difference in total payments and the timing of those payments between a \$100,000, 40 year, 5 percent loan and loan forbearance of \$100,000 (a 40 year interest free loan).

Figure 3: Comparison of Traditional Mortgage with Forbearance

	Amortizing Loan	Forbearance
Principal Balance	\$100,000.00	\$100,000.00
Interest Rate	5%	0%
Term (in months)	480	480
Number of Payments	480 (1 each month)	1 (at month 480)
Payment Amount	\$482.20	\$100,000.00
Total Payments	\$231,454.37	\$100,000.00
Present Value of Payments at 5%	\$100,000.00	\$13,589.88

²⁹ To the extent I receive additional information about the terms of any loan modification to which the Plaintiffs were entitled, I reserve the right to adjust my calculations accordingly.

³⁰ I do not have interrogatory responses regarding the correct modified loan payments for most of the California Plaintiffs. If I do receive responses for those Plaintiffs, I may need to update my analysis accordingly.

³¹ Making Home Affordable, Home Affordable Modification Program. (<https://www.treasury.gov/initiatives/financial-stability/TARP-Programs/housing/mha/Pages/hamp.aspx>).

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31. As previously mentioned, in those limited cases where Plaintiffs sold their homes under the threat of foreclosure, I subtract the sale price from the current value of the home to arrive at lost equity. In each of these cases, the sale price was greater than the amount owed at the time of the denied loan modification. The sale price is a matter of public record available from a number of sources. I have used Zillow to determine the sale price.

32. Unlike the mortgage obligations of the Plaintiffs, the current market values of the homes lost by Plaintiffs must be estimated. I have used two leading home valuation estimators (Redfin and Zillow) to obtain an estimate of the current market value of the homes lost by Plaintiffs. Both companies state that their estimates are highly accurate,³² but that home sellers may want to supplement the estimates with an appraisal or input from a real estate agent. While this may be good advice for typical home sellers, this approach is not likely to provide a better measure of value for my purposes. One major difference between an appraisal and the estimates provided by Redfin and Zillow is that an appraiser may conduct a physical inspection of the property. This would help determine whether improvements or upgrades have been made since the last sale, or whether the home is currently in disrepair. This type of information, however, is not relevant for my analysis. It speaks to the condition of the home under the specific current owner of the property, which to the extent possible should not be included in the valuation for my purposes. In short, a valuation based on public data and driven by computer algorithms is likely to provide a better average value for purposes of this case than an appraisal including a physical inspection of the property. Moreover, it would be logically impossible to obtain full appraisals given the fact that Plaintiffs no longer own the properties. Therefore, I believe that the online valuation estimates provided by Redfin or Zillow are the most reasonable for the purposes of my report. The following sections of this report provide more detail about both Redfin's and Zillow's estimates.

Redfin

33. Redfin's primary business is as a residential real estate brokerage.³³ Redfin distinguishes itself from traditional brokerage firms through the use of technology to "create a service that is faster, better, and costs less."³⁴ Part of the technology that sets Redfin apart is its

³² See <https://www.redfin.com/redfin-estimate> and <https://www.zillow.com/zestimate/>.

³³ Redfin Corporation 10-K for the year ended December 31, 2018, p. 1.

³⁴ Redfin Corporation 10-K for the year ended December 31, 2018, p. 1.

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Redfin Estimate, which provides an estimate of the market value of individual homes.³⁵ Redfin uses its “business data and proprietary algorithms to inform [our] machine learning” in the calculation of its Redfin Estimates. The accuracy of these Redfin Estimates is crucial to the company’s success. Redfin notes that “if our Redfin Estimate fails to accurately reflect market pricing such that we are unable to attract homebuyers or help our customers sell their homes at satisfactory prices, or at all, customers may lose confidence in us.”³⁶ Furthermore, Redfin offers a service called RedfinNow, which is a direct home purchase and resale business.³⁷ RedfinNow was transitioned from an experimental offering to part of the company’s long-term business in 2018.³⁸ The company uses its Redfin Estimate as part of its analysis of what a home is worth to determine the price it will pay for homes. Importantly, the company notes that if its “estimates of what a home is worth and the algorithm we use to inform those estimates” are not accurate, the company “may pay more for homes than their resale value.”³⁹

34. Redfin states that its Redfin Estimates are “highly accurate, with a current median error rate of just 1.69% for homes that are for sale, and 5.95% for off market homes.”⁴⁰ This means that 50 percent of the time, the Redfin estimate will be within 1.69% or 5.95% of the eventual sales price of a home for on-market and off-market homes respectively. The company also states that “to calculate the Redfin Estimate the algorithm considers hundreds of data points about the market, the neighborhood, and the home itself, like whether it has a water view or is located on a busy street.”⁴¹ The figure below summarizes the accuracy of Redfin Estimates.

³⁵ Redfin Corporation 10-K for the year ended December 31, 2018, p. 7.

³⁶ Redfin Corporation 10-K for the year ended December 31, 2018, p. 7.

³⁷ Redfin Corporation 10-K for the year ended December 31, 2018, p. 2.

³⁸ Redfin Corporation 10-K for the year ended December 31, 2018, p. 10.

³⁹ Redfin Corporation 10-K for the year ended December 31, 2018, p. 10.

⁴⁰ About the Redfin Estimate_Home Value Estimator.pdf, p. 2.

⁴¹ About the Redfin Estimate_Home Value Estimator.pdf, p. 2.

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Figure 4: Summary of Redfin Accuracy⁴²

Status	Redfin Estimates	Median Error	Within 5%	Within 10%	Within 20%
On Market	1,789,288	1.69%	83.87%	94.07%	98.05%
Off Market	83,714,209	5.96%	44.06%	67.58%	86.00%

35. Finally, Redfin hired the research firm SSRS to “independently assess, using appropriate and commonly-used metrics, the relative prediction performance of Redfin, Zillow and Homes.com.”⁴³ SSRS concluded that the “metrics employed demonstrate that Redfin performed better in predicting actual sale prices than either Zillow or Homes.com.”⁴⁴ Based on the analysis conducted by SSRS, it is also clear that Zillow performed better than Homes.com in predicting actual sales prices.

Zillow

36. Zillow states that it has the “largest portfolio of real estate and home-related brands on mobile and the web which focus on all stages of the home lifecycle: renting, buying, selling and financing.”⁴⁵ Zillow provides its users with an automated home valuation estimate, which it calls a Zestimate. The company describes the Zestimates as “industry-leading automated home valuation models that use advanced statistical methods and complex, proprietary algorithms...to provide current home value estimates...on approximately 100 million U.S. homes.”⁴⁶ The company also lists its “Inimitable Database of Homes,” which includes its Zestimates, among its competitive advantages.⁴⁷ Zestimates are generated using a wide variety of information including:

Physical attributes: location, lot size, square footage, number of bedrooms and bathrooms and many other details.

Tax assessments: property tax information, actual property taxes paid, exceptions to tax assessments and other information provided in the tax assessors’ records.

⁴² Filename: redfin_estimate_accuracy_2019-12-01. Downloaded from Redfin.com.

⁴³ Comparison of Estimates of Residential Property Values, SSRS, January 27, 2017, p. 2.

⁴⁴ Comparison of Estimates of Residential Property Values, SSRS, January 27, 2017, p. 2.

⁴⁵ Zillow Group, Inc. 10-K for the year ended December 31, 2018, p. 3.

⁴⁶ Zillow Group, Inc. 10-K for the year ended December 31, 2018, p. 6.

⁴⁷ Zillow Group, Inc. 10-K for the year ended December 31, 2018, p. 6.

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Prior and current transactions: actual sale prices over time of the home itself and comparable recent sales of nearby homes.

User data: data provided directly by millions of users of our mobile applications and websites.⁴⁸

37. As an indication of how important the company believes the accuracy of its Zestimates are, Zillow announced a machine learning competition with a grand prize of \$1 million to the “person or team who submits the most improved Zestimate algorithm model.”⁴⁹ The company awarded the \$1 million prize to the winners in January 2019.⁵⁰ The winning team’s model beat the Zillow benchmark model by approximately 13%.⁵¹ Zillow subsequently incorporated the “parts of the winning team’s model, along with other contest entries, to improve the accuracy of the Zestimate that appears on the listings for 110 million homes on Zillow.”⁵² The figure below summarizes the accuracy of Zestimates.

Figure 5: Summary of Zestimate Accuracy⁵³

Type	Homes with Zestimates	Median Error	Within 5% of Sale Price	Within 10% of Sale Price	Within 20% of Sale Price
On-Market	1.6M	1.9%	83.7%	95.3%	98.8%
Off-Market	97.5M	7.7%	36.2%	59.2%	80.5%

38. Based on the preceding analysis, including a comparison of estimate accuracy provided by both companies, I have used Redfin Estimates when available in the calculation of lost equity damages. If Redfin does not provide an estimate for a particular property, then I use the Zestimate provided by Zillow.

39. Finally, in a few cases, the estimated current market value of Plaintiffs’ homes is still below the amount owed meaning that these Plaintiffs would still be under water on their homes. In these specific cases, lost equity damages are set to zero. This is appropriate because

⁴⁸ Zillow Group, Inc. 10-K for the year ended December 31, 2018, p. 10.

⁴⁹ Zillow Group, Inc. 10-K for the year ended December 31, 2018, p. 10.

⁵⁰ Zillow Group, Inc. 10-K for the year ended December 31, 2018, p. 10.

⁵¹ Zillow Group, Inc. 10-K for the year ended December 31, 2018, p. 10.

⁵² <https://www.housingwire.com/articles/48052-zillow-awards-1-million-prize-for-making-zestimates-more-accurate/>.

⁵³ Filename: 20190619231625555797_DataCoverageAndZestAccuracy. Downloaded from Zillow.com.

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Plaintiffs could decide to walk away from the remaining mortgage obligation today, just as many previously did, and would not suffer a loss associated with the remaining negative equity. Alternatively, Plaintiffs could decide that the benefits associated with the use of the home, which would continue into the future and accelerate once the mortgage is ultimately paid off, plus the potential future appreciation of the property, outweigh any current negative equity.

40. The figure below provides an example calculation of lost equity damages for Ms. Granja.

Figure 6: Lost Equity Damages for Debora Granja⁵⁴

		Damages
Lost Equity		
Current Market Value	\$	692,580
Less: Principal Balance as of Error Date		(456,013)
Total Lost Equity	\$	236,567

5.1.2 Lost Use

41. Lost use damages arise because Plaintiffs could no longer occupy (use) their properties due to foreclosure or sale under threat of foreclosure, and instead had to find alternative living arrangements. This is different than lost equity in that lost equity measures only the losses associated with the potential appreciation of the property value. The proper calculation to measure the lost use of Plaintiffs' homes lost to foreclosure is the difference between the cost of renting an equivalent home and the cost of living in and maintaining their own homes. They lost the use of their home, which can be valued at the cost of renting a roughly equivalent property. They also avoided the cost of living in and maintaining their homes, which I therefore subtract to arrive at lost use damages. It is important to note that the actual rent incurred by Plaintiffs after losing their homes is not relevant. For example, if after losing her home to foreclosure, a plaintiff lived in her car and incurred no rent for a time, it would not reduce the value of what was lost – the ability to live in the home that was foreclosed on.

42. I have estimated the rental value of the homes lost to foreclosure using data from the Department of Housing and Urban Development ("HUD"). HUD publishes Small Area Fair

⁵⁴ I use the interest rate on the proposed modified mortgage to discount the nominal amount of the loan forbearance from the end of the loan term to December 31, 2019.

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Market Rents (“SAFMRs”) by zip code and size of rental throughout the U.S.⁵⁵ Small Area Fair Market Rents are Fair Market Rents calculated for ZIP Codes within Metropolitan Areas.⁵⁶ Small Area FMRs are required to be used to set Section 8 Housing Choice Voucher payment standards in areas designated by HUD.⁵⁷ “Historically, HUD has established a single set of FMRs for units of various sizes in each metro area or rural county. In recent years, however, HUD has tested SAFMRs, which are based on rents in particular zip codes and therefore reflect neighborhood rents more accurately than metro-level FMRs.”⁵⁸ The time period I use to calculate the fair market rent of Plaintiffs’ homes starts with the foreclosure date and runs through December 31, 2019.⁵⁹ This assumption allows for the possibility that Plaintiffs maintained the use of their homes all the way up to the date of foreclosure. Therefore, the value they lost begins only after foreclosure.

43. From the fair market rent I subtract relevant home ownership costs to arrive at total lost use damages. Relevant home ownership costs include mortgage interest payments that would have been due on the modified loans that Plaintiffs’ did not ultimately receive. These payments are calculated based on information and documents provided by Wells Fargo. In addition, I include property taxes, and the estimated tax benefits on both mortgage interest and property taxes. I also include the costs of insurance and maintenance.

44. For each category of costs, I use any available information on actual costs associated with the properties in question. For example, property taxes and insurance costs at the time of the loan modification denial were often included in the escrow portion of Plaintiffs’ mortgage payments. Actual property taxes on the homes in question for the last five years is available from public sources and compiled by Zillow. Absent actual information, I use reasonable estimates. For example, I have used the average increase in homeowner’s insurance over the 10 year period from 2008 through 2017 as reported by the Insurance Information Institute to estimate the growth in homeowner’s on the properties in question. My estimates of home maintenance

⁵⁵ https://www.cbpp.org/research/housing/a-guide-to-small-area-fair-market-rents-safmrs#safmr_h1

⁵⁶ https://www.cbpp.org/research/housing/a-guide-to-small-area-fair-market-rents-safmrs#safmr_h1

⁵⁷ https://www.cbpp.org/research/housing/a-guide-to-small-area-fair-market-rents-safmrs#safmr_h1

⁵⁸ https://www.cbpp.org/research/housing/a-guide-to-small-area-fair-market-rents-safmrs#safmr_h1

⁵⁹ Foreclosure dates have been estimated in some cases based on documents provided by Wells Fargo. In other cases I have used public data compiled by Zillow to estimate the foreclosure date. In most instances, the estimated foreclosure date is based on the date the property was sold after foreclosure.

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costs are based on a report prepared by Thumbtack and Zillow that estimated the annual cost of maintenance for the most common hired home maintenance projects.

45. The time period I use to calculate the relevant home ownership costs starts with the date Plaintiffs were denied mortgage modifications and runs through December 31, 2019. This assumes that Plaintiffs stopped incurring any home ownership costs once they were denied a loan modification. Therefore, the period for which relevant incremental costs are calculated is longer than the period used to calculate the incremental benefits in my analysis. The figure below provides an example calculation of lost use damages for Ms. Granja.

Figure 7: Lost Use Damages for Debora Granja⁶⁰

Lost Use

Estimated Value of Occupancy

Fair Market Rent	\$ 295,830
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Relevant Home Ownership Costs

Mortgage Interest Payments	122,987
Property Taxes	30,771
Total Tax Deductible Payments	<hr/> 153,758
Less: Tax Benefits	<hr/> (36,902)
After-tax Interest and Property Taxes	<hr/> 116,856

Insurance	4,569
Maintenance	<hr/> 18,126
Total Relevant Home Ownership Costs	<hr/> 139,551

Total Lost Use	\$ 156,279
-----------------------	-------------------

5.1.3 Other Damages

46. Other damages encompass an assortment of incremental costs incurred by Plaintiffs as a result of being denied mortgage modifications. While each type of other damages described in the Complaint (loss of favorable interest rates and other loan terms, loss of time and money spent to avoid foreclosure, loss of time and money to find new housing and move their families, damage to credit, opportunity costs due to damaged credit and higher mortgage payments) represent reasonable categories of incremental costs, I have not attempted to estimate them. Instead, I have focused exclusively on the loss of favorable interest rates and other loan

⁶⁰ Exhibit 1, Schedule 6.1.

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terms, and the cost of moving for Plaintiffs who are no longer in their homes. As previously stated, there may be other financial categories or non-economic harm that I have not been asked to calculate but that Plaintiffs themselves could prove, that are outside of the scope of this report

Loss of Favorable Interest Rates and Other Loan Terms

47. With regard to the loss of favorable interest rates and other loan terms, Mr. and Mrs. Simoneaux, Mr. Michael Carroll, Mr. Ruben Gallardo, Mr. Scott Seymour, and Mr. Jose Chavez, who were all denied mortgage modifications but managed to maintain ownership of their homes, potentially suffered incremental costs because the mortgage modification for which they were qualified included beneficial terms relative to the loan terms under which they continued to pay.⁶¹ For example, the interest rate on the modified loan for Mr. and Mrs. Simoneaux would have been reduced to 4.625% from the 7.5% interest on their original mortgage.⁶² Furthermore, Mr. and Mrs. Simoneaux missed out on loan forbearance of \$8,065.82 included in the potential modified loan. As previously described, loan forbearance is effectively an interest free loan for the entire loan term. Additionally, the term of the modified loan was extended beyond the remaining term of the existing loans. Finally, Mr. and Mrs. Simoneaux may have lost out on HAMP incentives that would have applied to the modified loan. All of these differences represent benefits Plaintiffs did not receive.

48. I have calculated the value of the interest rate, forbearance, and HAMP incentive benefits of the modified loans at the time the loan modifications were improperly denied as the difference between the face value of the principal amounts due under the modification (unpaid principal balance plus forbearance) and the present value of the payments due under the modified loan and forbearance at the interest rate underlying the original loan, plus the value of the HAMP incentive. This difference measures in present value terms the benefits of the modified loan versus the original loan. The figure below provides an example calculation of other damages for Mr. and Mrs. Simoneaux.

⁶¹ The loss of favorable interest rates and other terms for other Plaintiffs has already been accounted for in the lost equity and lost use calculations.

⁶² WF_HERNANDEZ_00017771, p.3.

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Figure 8: Other Harm for Russell and Brenda Simoneaux⁶³

	Modified Loan Amount	Forbearance	Total
	(a)	(a)	
Amount Owed	\$27,158.34	\$8,065.82	\$35,224.16
Interest Rate	4.625%	0%	
Term	360	360	
Payment(s)	(141.49)	(8,065.82)	
Discount Rate	7.500%	7.500%	
Present Value of Payment(s)	20,235.56	856.10	<u>21,091.67</u>
Amount owed - Present Value of Payment(s)			14,132.49
Lost HAMP Incentive			5,000.00
Value of Modification			\$19,132.49

Moving Expenses

49. Moving expenses are incremental costs incurred by all Plaintiffs who ended up moving against their desires as a result of Wells Fargo's wrongful conduct. For purposes of calculating damages, I have used the average cost of an intrastate household move as estimated by the American Moving and Storage Association. I believe this is a more appropriate measure than the actual costs incurred by Plaintiffs because the actual (nominal) cost of moving will depend on the amount of time and effort each Plaintiff spent on their individual move. A Plaintiff who borrowed a truck and enlisted friends and family to help with a move will have incurred a low nominal cost of moving relative to a Plaintiff who hired professional movers. However, the low nominal cost will not include the value of the time and effort spent by the Plaintiff and those who helped with the move. Therefore, I believe a better measure of the cost of moving is the nationwide average cost of an intrastate household move of \$2,300.

5.1.4 Tax Implications

50. My objective is to calculate the award that is required to put the Plaintiffs in the same economic position they would have occupied "but-for" the Defendant's alleged misconduct. Since damages awards are typically taxable, this dictates a pre-tax calculation of damages.⁶⁴ Moreover, each category of damages I have calculated is based on either a lost gain that likely

⁶³ Exhibit 1, Schedule 7.1.

⁶⁴ Note that I am not expressing an opinion on the tax implications of an award or settlement for each individual Plaintiff. I am instead providing a reasonable estimate of the

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would not have been taxable, or an incremental cost that would have been paid using after-tax dollars. For example, while not the same as capital gains on the sale of a home, the lost equity calculation is based on the underlying appreciation of Plaintiffs' homes, which enjoy an exclusion of up to \$250,000 for single individuals or \$500,000 for married couples. In addition, lost use damages are made up of equivalent rent, which is paid for with after-tax dollars, and after-tax costs of ownership.

51. The calculation of total pre-tax damages requires a grossing up of the after-tax damages. I have done this using an average effective state and federal tax rate of 24 percent. This methodology and the rate are identical to the methodology and rate described in Wells Fargo's Remediation Plan for proposed remediation payments to impacted customers.⁶⁵ As an example, a taxable award of \$100 would have to be grossed up to \$131.58⁶⁶ so that after paying taxes on the award the Plaintiff would be left with \$100.⁶⁷ As shown in the summary figures below, I have provided both after-tax and pre-tax estimates of damages for each Plaintiff.

6. OPINIONS

52. Following the methodology illustrated above, I have calculated damages for all Named and California Plaintiffs. My opinion of the resulting damages due to each Plaintiff is shown in the figure below.

⁶⁵ Customer Remediation (C2C) Center of Excellence, Remediation Plan (WF_HERNANDEZ_00079468, p. 5).

⁶⁶ $\$100/(1 - .24) = \131.58 .

⁶⁷ $\$131.58 - (\$131.58 \times .24) = \$100$.

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Figure 9: Summary of Damages⁶⁸

Plaintiff	Summary of Damages						Total Pre-Tax
	Lost Equity	Lost Use	Other	Total After-Tax			
(a)							
Alicia Hernandez	\$ 44,842	\$ 371	\$ -	\$ 45,213	\$		59,491
Emma White	\$ -	\$ 43,223	\$ 2,300	\$ 45,523	\$		59,899
Troy Frye	\$ 43,191	\$ 32,304	\$ 2,300	\$ 77,795	\$		102,362
Coszetta Teague	\$ -	\$ 23,172	\$ 2,300	\$ 25,472	\$		33,515
John and Yvonne DeMartino	\$ -	\$ 14,818	\$ 433	\$ 15,251	\$		20,067
Russell and Brenda Simoneaux	\$ -	\$ -	\$ 19,132	\$ 19,132	\$		25,174
Rose Wilson	\$ 36,189	\$ 6,646	\$ 2,300	\$ 45,135	\$		59,388
Tiffanie Hood	\$ 76,235	\$ 3,242	\$ 2,300	\$ 81,777	\$		107,601
Cyndi Floyd	\$ 14,354	\$ 8,162	\$ 2,300	\$ 24,816	\$		32,652
Diana Trevino	\$ 97,471	\$ 42,085	\$ 2,300	\$ 141,856	\$		186,653
Total	\$ 312,282	\$ 174,022	\$ 35,666	\$ 521,970	\$	686,803	
(b)							
Plaintiff	Lost Equity	Lost Use	Other	Total After-Tax			Total Pre-Tax
Debora Granja	\$ 236,567	\$ 156,279	\$ 2,300	\$ 395,146	\$		519,929
Ismail Cedillos	\$ 283,810	\$ 60,343	\$ 2,300	\$ 346,453	\$		455,859
Sandra Campos	\$ 174,100	\$ 42,705	\$ 2,300	\$ 219,105	\$		288,296
Ruben Gallardo	\$ -	\$ -	\$ 23,139	\$ 23,139	\$		30,446
Maria Nuno	\$ 76,833	\$ 48,460	\$ 2,300	\$ 127,593	\$		167,886
Jerry De la Cruz	\$ 139,718	\$ 31,419	\$ 2,300	\$ 173,437	\$		228,206
Charles Gomez	\$ 276,617	\$ 68,295	\$ 2,300	\$ 347,212	\$		456,858
Cathline Gonzales	\$ 116,228	\$ 47,088	\$ 2,300	\$ 165,616	\$		217,915
Jameel Hayden	\$ 205,827	\$ (36,580)	\$ 2,300	\$ 171,547	\$		225,720
Kevin Nesbitt	\$ 304,085	\$ 58,292	\$ 2,300	\$ 364,677	\$		479,838
Michael Carrol	\$ -	\$ -	\$ 110	\$ 110	\$		145
Jose L. Chavez	\$ -	\$ -	\$ -	\$ -	\$		-
Elizabeth Messana	\$ 224,757	\$ 18,176	\$ 2,300	\$ 245,233	\$		322,674
Martha Montenegro	\$ 222,057	\$ 85,365	\$ 2,300	\$ 309,722	\$		407,529
Rafael Sanchez	\$ 342,280	\$ 133,755	\$ 2,300	\$ 478,335	\$		629,388
Scott Seymour	\$ -	\$ -	\$ 11,668	\$ 11,668	\$		15,353
Hortensia Torres	\$ 48,073	\$ 95,804	\$ 2,300	\$ 146,177	\$		192,338
David Vance	\$ 80,409	\$ 24,526	\$ 2,300	\$ 107,234	\$		141,098
Anna Schulke	\$ 117,126	\$ 25,653	\$ 2,300	\$ 145,079	\$		190,893
Derrick Cannon	\$ 88,932	\$ (11,134)	\$ 2,300	\$ 80,097	\$		105,391
Jason Hewitt	\$ 142,995	\$ 37,341	\$ 2,300	\$ 182,636	\$		240,311
Kimberly Gladman	\$ 207,625	\$ 57,695	\$ 2,300	\$ 267,619	\$		352,131
Donna Perreault	\$ 20,333	\$ 4,966	\$ 2,300	\$ 27,599	\$		36,315
Joseph Plescia	\$ 218,943	\$ 28,358	\$ 2,300	\$ 249,601	\$		328,422
Total	\$ 3,527,313	\$ 976,805	\$ 80,917	\$ 4,585,036	\$	6,032,942	

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7. DOCUMENTS, DATA AND OTHER INFORMATION CONSIDERED

53. The documents and data that I considered in forming my opinions are noted in this report and/or listed in Exhibit 3.

8. POTENTIAL ADDITIONAL ANALYSES TO PERFORM

54. My opinions are based on the information received as the date of my report. To the extent I am provided with new information, I will consider its relevance and may update my opinions and report accordingly. In addition, because some of the key inputs used to calculate damages, such as the current market value of the properties in question, change over time, I may be required to update my calculation of damages for trial.

9. COMPENSATION

55. I am presently being compensated for my work in this matter at a rate of \$450 per hour. Other consultants that may assist me in this engagement and are billed at various rates under \$450 per hour. No part of my compensation depends on the outcome of this litigation.



Dan Salah

⁶⁸ Exhibit 1, Schedule 1.0 and 1.1. I am aware that at least some Plaintiffs have previously received compensation from Wells Fargo related to this matter. Any amounts previously received should be deducted from the total damages I have calculated.